



GALSON

Dan Bigbee
EA Engineering
225 Schilling Circle
Suite 400
Hunt Valley, MD 21031

August 17, 2021

Account# 14881

Login# L543949

Dear Dan Bigbee:

Enclosed are the analytical results for the samples received by our laboratory on August 12, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

A handwritten signature in cursive script that reads 'Lisa Swab'.

Lisa Swab
Laboratory Director

Enclosure(s)



GALSON

ANALYTICAL REPORT

Account : 14881
Login No. : L543949

Terms and Conditions & General Disclaimers

- This document is issued by the Company under its General Conditions of Service accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Analytical Disclaimers

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <http://www.sgsgalson.com> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead, Environmental Microbiology

State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials
Texas	Texas Dept. of Licensing and Regulation	Lab ID: 1042	Mold Analysis Laboratory license

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - Liters	m3 - Cubic Meters	NS - Not Specified	ppbv - ppb Volume
LOQ - Limit of Quantitation	kg - Kilograms	ND - Not Detected	ppmv - ppm Volume
ft2 - Square Feet	cm2 - Square Centimeters	in2 - Square Inches	ng - Nanograms



GALSON

LABORATORY ANALYSIS REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client : EA Engineering
Site : NS
Project No. : ALTEN ETHANOL PLANT FAST-TRACK AIR MONITORING
Date Sampled : 04-AUG-21 - 10-AUG-21
Date Received : 12-AUG-21
Account No.: 14881
Login No. : L543949
Date Analyzed : 16-AUG-21
Report ID : 1260299

Ammonia

<u>Sample ID</u>	<u>Lab ID</u>	<u>Time minutes</u>	<u>Total ug</u>	<u>Conc mg/m3</u>	<u>ppm</u>
1	L543949-1	1423	6.1	0.15	0.22
2	L543949-2	1423	6.5	0.16	0.23
3	L543949-3	1421	5.6	0.14	0.20
4	L543949-4	1421	7.4	0.18	0.26
5	L543949-5	1419	30	0.74	1.1
6	L543949-6	1421	43	1.0	1.5
1	L543949-7	1429	6.1	0.15	0.21
2	L543949-8	1431	6.3	0.15	0.22
3	L543949-9	1434	6.9	0.17	0.24
4	L543949-10	1439	7.5	0.18	0.26
5	L543949-11	1441	22	0.54	0.77
6	L543949-12	1446	23	0.54	0.78
1	L543949-13	1459	5.0	0.12	0.17
2	L543949-14	1459	11	0.25	0.37
3	L543949-15	1455	15	0.36	0.51
4	L543949-16	1452	9.2	0.22	0.32

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 5.0 ug
Analytical Method : mod. OSHA ID-188/ID-164; ISE
Collection Media : Assay 584

Submitted by: BMS
Date : 17-AUG-21
Supervisor : JGC

Approved by: JGC



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Ammonia

<u>Sample ID</u>	<u>Lab ID</u>	<u>Time minutes</u>	<u>Total ug</u>	<u>Conc mg/m3</u>	<u>ppm</u>
5	L543949-17	1450	17	0.42	0.60
6	L543949-18	1446	24	0.58	0.83
1	L543949-19	1432	6.3	0.15	0.22
2	L543949-20	1436	10	0.24	0.35
3	L543949-21	1440	7.5	0.18	0.26
4	L543949-22	1442	5.7	0.14	0.20
5	L543949-23	1447	24	0.58	0.83
6	L543949-24	1449	17	0.41	0.58
1	L543949-25	1428	<4.7	<0.11	<0.16
2	L543949-26	1430	<4.7	<0.11	<0.16
3	L543949-27	1431	22	0.53	0.76
4	L543949-28	1436	35	0.86	1.2
5	L543949-29	1435	23	0.57	0.81
6	L543949-30	1435	10	0.24	0.35
1	L543949-31	1434	5.3	0.13	0.18
2	L543949-32	1432	12	0.30	0.42

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 5.0 ug
Analytical Method : mod. OSHA ID-188/ID-164; ISE
Collection Media : Assay 584

Submitted by: BMS
Date : 17-AUG-21
Supervisor : JGC

Approved by: JGC



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LABORATORY ANALYSIS REPORT

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Client : EA Engineering
Site : NS
Project No. : ALTEN ETHANOL PLANT FAST-TRACK AIR MONITORING
Date Sampled : 04-AUG-21 - 10-AUG-21
Date Received : 12-AUG-21
Account No.: 14881
Login No. : L543949
Date Analyzed : 16-AUG-21
Report ID : 1260299

Ammonia

<u>Sample ID</u>	<u>Lab ID</u>	<u>Time minutes</u>	<u>Total ug</u>	<u>Conc mg/m3</u>	<u>ppm</u>
3	L543949-33	1429	13	0.32	0.45
4	L543949-34	1427	16	0.38	0.55
5	L543949-35	1424	18	0.45	0.65
6	L543949-36	1424	38	0.93	1.3
1	L543949-37	1441	7.3	0.18	0.25
2	L543949-38	1442	10	0.24	0.35
3	L543949-39	1444	11	0.28	0.40
4	L543949-40	1443	28	0.67	0.97
5	L543949-41	1439	24	0.58	0.83
6	L543949-42	1438	4.9	0.12	0.17

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 5.0 ug
Analytical Method : mod. OSHA ID-188/ID-164; ISE
Collection Media : Assay 584

Submitted by: BMS
Date : 17-AUG-21
Supervisor : JGC

Approved by: JGC



GALSON

LABORATORY FOOTNOTE REPORT

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

Client Name : EA Engineering
Site :
Project No. : ALTEN ETHANOL PLANT FAST-TRACK AIR MONITORING
Date Sampled : 04-AUG-21 - 10-AUG-21 Account No.: 14881
Date Received: 12-AUG-21 Login No. : L543949
Date Analyzed: 16-AUG-21

L543949 (Report ID: 1260299):

SOPs: ic-assay(22)
Total ug corrected for a desorption efficiency of 106%.

L543949 (Report ID: 1260299):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Ammonia	+/-19.7%	98.3%

SGS**GALSON****CHAIN OF CUSTODY**

Page 1 of 2

64-70

Client Account No:
14881

126358040193691098

Date: 08/12/21

Shipper: UPS

Initials: BGF



Prep: UNKNOWN

CS Rep:
BHONEYCUTT

Invoice To: Mr. Dan Bigbee

Company Name: EA Engineering

Address 1: 225 Schilling Circle

Address 2: Suite 400

City, State Zip Hunt Valley, MD 20131

Phone No.: 410-584-7000

dbigbee@eaest.com

Email Address: lincolnap@eaest.com

☒ Samples submitted using the FreeSamplingBadges™ Program

Project: AltEn Ethanol Plant Fast-Track Air Monitoring

Sample ID	Date Sampled	Collection Medium	Sample Duration	Sample Unit	Analysis Requested	Method Reference
1	8/4/2021	Assay N584 Ammonia Badge	1423	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
2	8/4/2021	Assay N584 Ammonia Badge	1423	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
3	8/4/2021	Assay N584 Ammonia Badge	1421	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
4	8/4/2021	Assay N584 Ammonia Badge	1421	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
5	8/4/2021	Assay N584 Ammonia Badge	1419	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
6	8/4/2021	Assay N584 Ammonia Badge	1421	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
1	8/5/2021	Assay N584 Ammonia Badge	1429	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
2	8/5/2021	Assay N584 Ammonia Badge	1431	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
3	8/5/2021	Assay N584 Ammonia Badge	1434	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
4	8/5/2021	Assay N584 Ammonia Badge	1439	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
5	8/5/2021	Assay N584 Ammonia Badge	1441	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
6	8/5/2021	Assay N584 Ammonia Badge	1446	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
1	8/6/2021	Assay N584 Ammonia Badge	1459	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
2	8/6/2021	Assay N584 Ammonia Badge	1459	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
3	8/6/2021	Assay N584 Ammonia Badge	1455	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
4	8/6/2021	Assay N584 Ammonia Badge	1452	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
5	8/6/2021	Assay N584 Ammonia Badge	1450	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
6	8/6/2021	Assay N584 Ammonia Badge	1446	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE

Chain of Custody

Relinquished By:

Received By:

Keat Dixon

Name and Signature

Keith Dix

11 Aug 21 / 16 30
Date and Time

Page 7 of 8 Report Reference: 17-AL-0121-10-18

Brett Grenier-Fischer

Brett Grenier-Fischer

8/12/21 1104

ED_006145_00000100-00007

Sample ID	Date Sampled	Collection Medium	Sample Duration	Sample Unit	Analysis Requested	Method Reference
1	8/7/2021	Assay N584 Ammonia Badge	1432	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
2	8/7/2021	Assay N584 Ammonia Badge	1436	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
3	8/7/2021	Assay N584 Ammonia Badge	1440	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
4	8/7/2021	Assay N584 Ammonia Badge	1442	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
5	8/7/2021	Assay N584 Ammonia Badge	1447	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
6	8/7/2021	Assay N584 Ammonia Badge	1449	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
1	8/8/2021	Assay N584 Ammonia Badge	1428	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
2	8/8/2021	Assay N584 Ammonia Badge	1430	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
3	8/8/2021	Assay N584 Ammonia Badge	1431	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
4	8/8/2021	Assay N584 Ammonia Badge	1436	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
5	8/8/2021	Assay N584 Ammonia Badge	1435	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
6	8/8/2021	Assay N584 Ammonia Badge	1435	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
1	8/9/2021	Assay N584 Ammonia Badge	1434	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
2	8/9/2021	Assay N584 Ammonia Badge	1432	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
3	8/9/2021	Assay N584 Ammonia Badge	1429	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
4	8/9/2021	Assay N584 Ammonia Badge	1427	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
5	8/9/2021	Assay N584 Ammonia Badge	1424	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
6	8/9/2021	Assay N584 Ammonia Badge	1424	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
1	8/10/2021	Assay N584 Ammonia Badge	1441	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
2	8/10/2021	Assay N584 Ammonia Badge	1442	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
3	8/10/2021	Assay N584 Ammonia Badge	1444	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
4	8/10/2021	Assay N584 Ammonia Badge	1443	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
5	8/10/2021	Assay N584 Ammonia Badge	1439	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE
6	8/10/2021	Assay N584 Ammonia Badge	1438	minutes	Ammonia	mod. OSHA ID-188/ID-164; ISE

Kent Dix

Kent Dixon

11 Aug 21 / 1630

Chain of Custody**Name and Signature****Date and Time**

Relinquished By:

Page 8 of 8

Report Reference: 17-AUG-21-10:18

Don't Generate

17-AUG-21-10:18

Received By:

8/12/21

1104